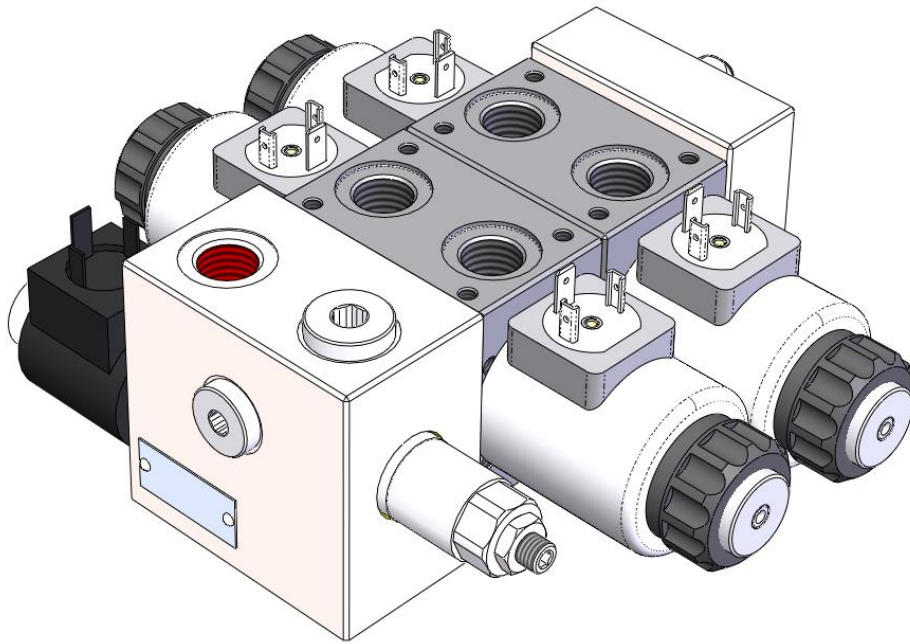


B30



B30:

Simple compact and heavy duty design 1 to 10 sections.

- Steel inlet and outlet sections, available in several configurations
- Cast iron working sections
- Different types of spools
- Different options to be flanged on the workports side
- Available in parallel and series circuits
- On/off solenoids controls.
- Proportional solenoids controls
- Emergency handlever available.

Additional information

This catalogue shows the product in the most standard configuration. For special requests please contact sales.

WARNING!

All specifications of this catalogue refer to the standard product at this date. Badestnost, oriented in continuous improvement, reserves the right to discontinue, modify or revise specifications, without notice.

**BADESTNOST IS NOT RESPONSIBLE FOR ANY DAMAGE CAUSED BY AN
INCORRECT USE OF THE PRODUCT**

First edition 09-2024

Working conditions

<i>Nominal flow rating</i>		30 l/min (50l/min)	7.9 US gpm (13.2 Us gpm)
Operating pressure (max.)	<i>parallel or tandem</i>	315 bar	46000 psi
	<i>series circuit</i>		
Back pressure (max.)	<i>outlet port T, static</i>	210 bar	3045 psi
	<i>outlet port T, dynamic</i>	180 bar	2610 psi
	<i>outlet port T, with lever type emergency</i>	100 bar	1450 psi
Internal leakage (min.) A(B) to T	$\Delta p = 100 \text{ bar (1450 psi)}$ fluid and valve at 40 °C (104 °F)	30 cm ³ /min	0.85 in ³ /min
<i>Hydraulic fluid</i>		Mineral based oil	
Fluid temperature	<i>with NBR seals</i>	from -20 °C to 80 °C	from -4 °F to 176 °F
	<i>with FPM (Viton) seals</i>	from -20 °C to 100 °C	from -4 °F to 212 °F
Viscosity	<i>operating range</i>	from 15 to 75 mm ² /s	from 15 to 75 cSt
	<i>min.</i>	12 mm ² /s	12 cSt
	<i>max.</i>	400 mm ² /s	400 cSt
<i>Permissible degree of fluid contamination</i>		20/18/15 - ISO 4406	NAS 1683 - class 9
Ambient temperature	<i>with mechanical devices</i>	from -40 °C to 60 °C	from -40 °F to 140 °F
	<i>with pneumatic and hydraulic devices</i>	from -30 °C to 60 °C	from -22 °F to 140 °F
	<i>with electric devices</i>	from -20 °C to 50 °C	from -4 °F to 140 °F
<i>Tightening torque of tie rods (strength class DIN 8.8)</i>		13-20 Nm	9.5-14.75 lb ft

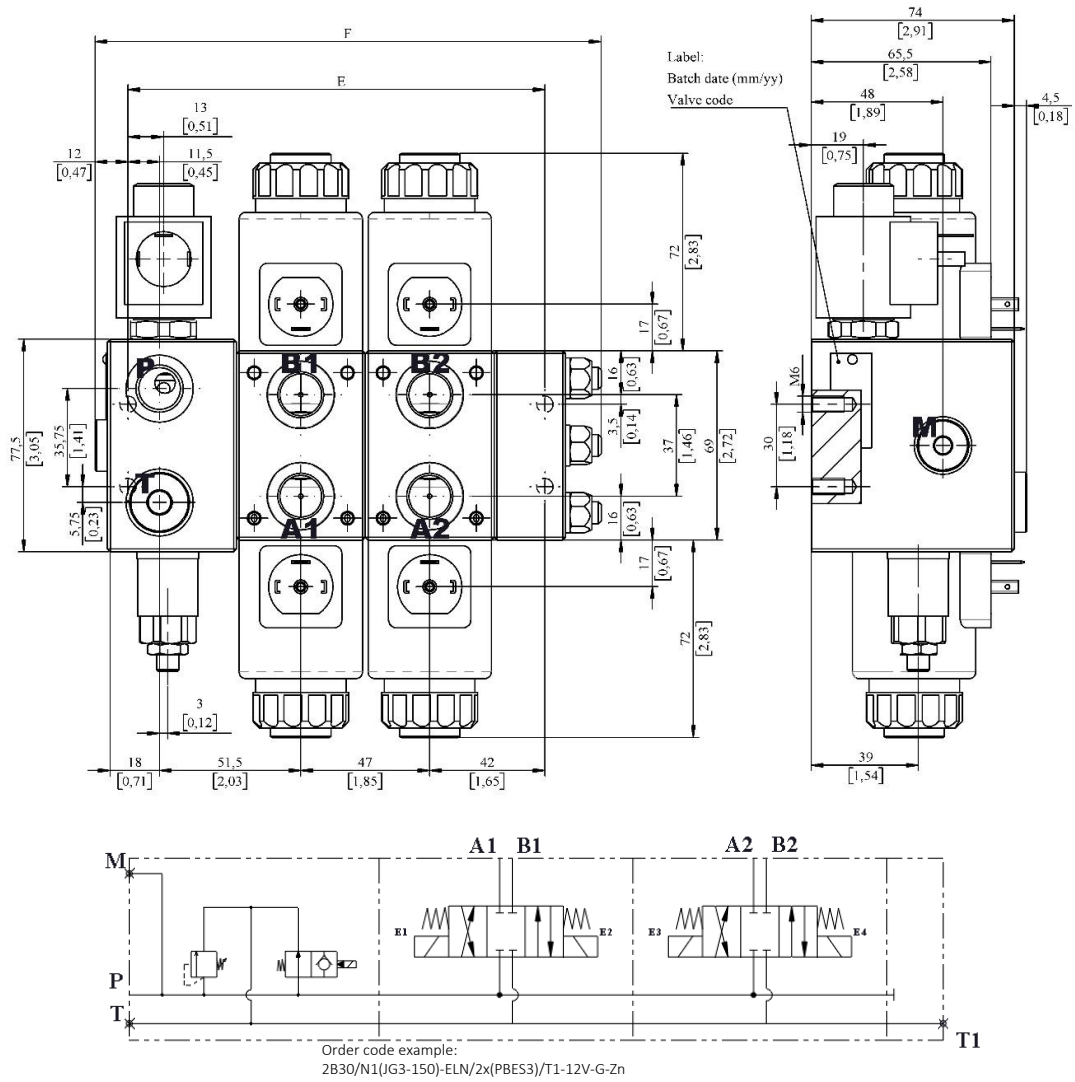
Standard threads

	Reference standard			
	BSP	UN-UNF	Metric	NPTF
Thread according to	ISO 228/1	ISO 263	ISO 262	Ansi B1.20.3
	BS 2779	ANSI B1.1 unified		
Cavity dimension according to	ISO 1179	11926	9974-1	
	SAE	J1926	J2244	J476a
	DIN 3852-2 (Shape X or Y)		3852-1 (Shape X or Y)	

Ports	Port threadings and codes			
	BSP "G38"	BSP "G12"	UN-UNF "S6"	UN-UNF "S8"
Inlet P and outlet T	G3/8	G1/2	9/16-18 (SAE6)	3/4-16 (SAE8)
Working ports A and B	G3/8	G1/2	9/16-18 (SAE6)	3/4-16 (SAE8)
M port	G1/4	G1/4	9/16-18 (SAE6)	9/16-18 (SAE6)
LS port	G1/4	G1/4	9/16-18 (SAE6)	9/16-18 (SAE6)

Dimensions

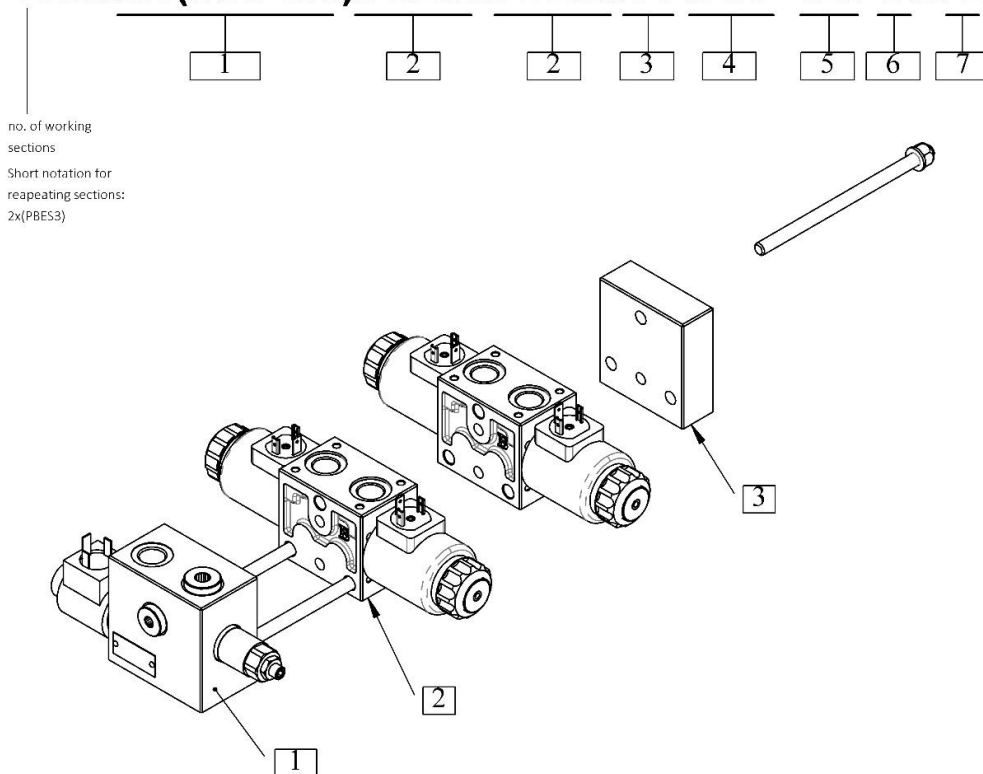
This drawing is referred to directional control valve with 2 working sections and N1 type inlet with unloader and relief valve



TYPE	Inlet type N1(svp)				Inlet type N1 with MRV				Inlet type N1 with MRV an unloader				Weight	
	E		F		E		F		E		F			
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
B30	87.5	3.44	118	4.65	93	3.66	124	4.88	105	4.13	136	5.35	5.80	12.8
2B30	134.5	5.30	165	6.50	140	5.51	171	6.73	152	5.98	183	7.20	8.00	17.6
3B30	181.5	7.15	212	8.35	187	7.36	218	8.58	199	7.83	230	9.06	10.2	22.5
4B30	228.5	9.00	259	10.20	234	9.21	265	10.4	246	9.69	277	10.9	12.4	27.3
5B30	275.5	10.8	306	12.05	281	11.1	312	12.3	293	11.5	324	12.8	14.6	32.2
6B30	322.5	12.7	353	13.90	328	12.9	359	14.1	340	13.4	371	14.6	16.8	37.0
7B30	369.5	14.5	400	15.75	375	14.8	406	16.0	387	15.2	418	16.5	19.0	41.9
8B30	416.5	16.4	447	17.60	422	16.6	453	17.8	434	17.1	465	18.3	21.2	46.7
9B30	463.5	18.2	494	19.45	469	18.5	500	19.7	481	18.9	512	20.2	23.4	51.6
10B30	510.5	20.1	541	21.30	516	20.3	547	21.5	528	20.8	559	22.0	25.6	56.4

Order code, complete

2B30/N1(JG3-150)/PBES3/PDES3/T1-STAF-12V-G38-Zn



no. of working sections
Short notation for repeating sections:
2x(PBES3)

1 Complete inlet cover

N1(svp)	Without relief valve, P open, T plugged
N1(JG3-120)	With relief valve type JG, P open, T plugged
N1(JG3-120)-ELN-WC	With relief valve type JG and unloader valve, P open, T plugged

2 Complete work section

PBES3-WC	Parallel circuit, type B double acting spool
PBES3LHD-WC	Parallel circuit, type B double acting spool with emergency lever
PBES3.BPC3-WC	Parallel circuit, type B double acting spool, with pilot operated check valve's block for both ports
PBES3(AyBy)-WC	Parallel circuit, type B double acting spool, with aux. valves for both ports

3 Complete outlet cover

T1	Side outlet port
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4 Fixing bracket

STAF	Brackets with fixing screws M6
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5 Solenoid specifications

12V	12V for ISO4400 connector
24V	24V for ISO4400 connector
12V(DT)	12V for Deutsch DT06 connector
24V(DT)	24V for Deutsch DT06 connector

5a Connectors

-	By default coils are without connector
(C)	Includes connector for coil

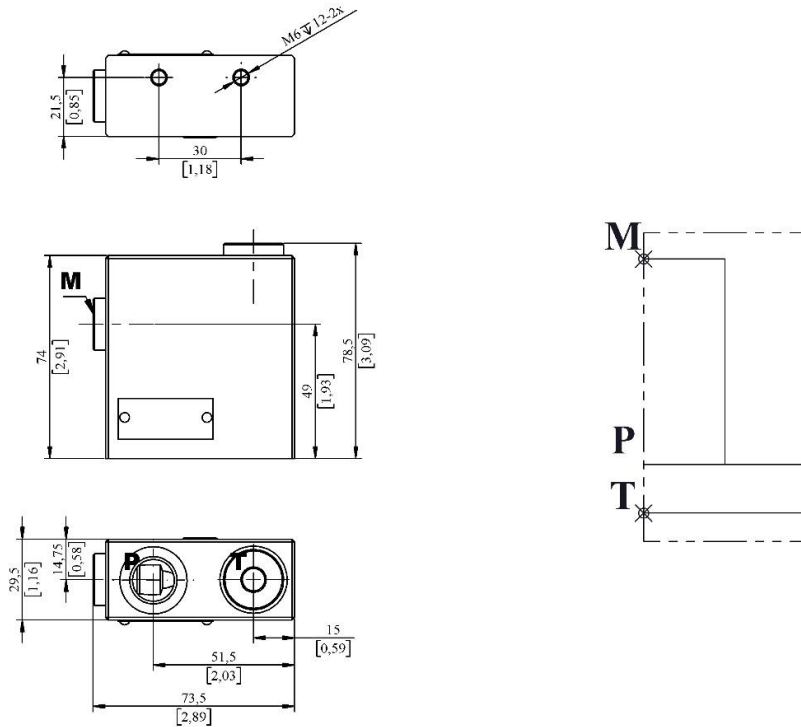
6 Valve Threading - refer to page 3

7 Coating and plating - refer to sales for more information

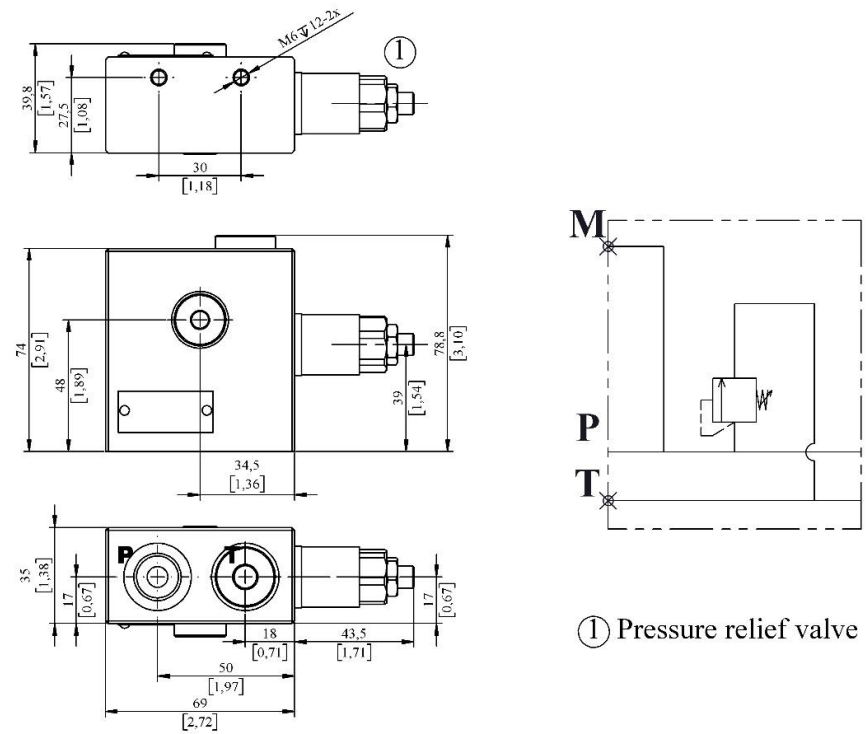
-	By default valves are phosphate plated
Zn	Zinc plating
BP	Painting

Inlet section: dimension and hydraulic circuit

Inlet section N1(svp)



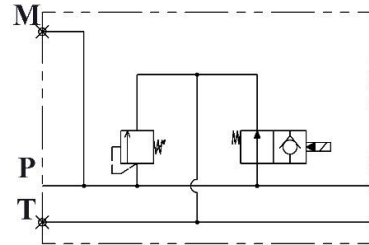
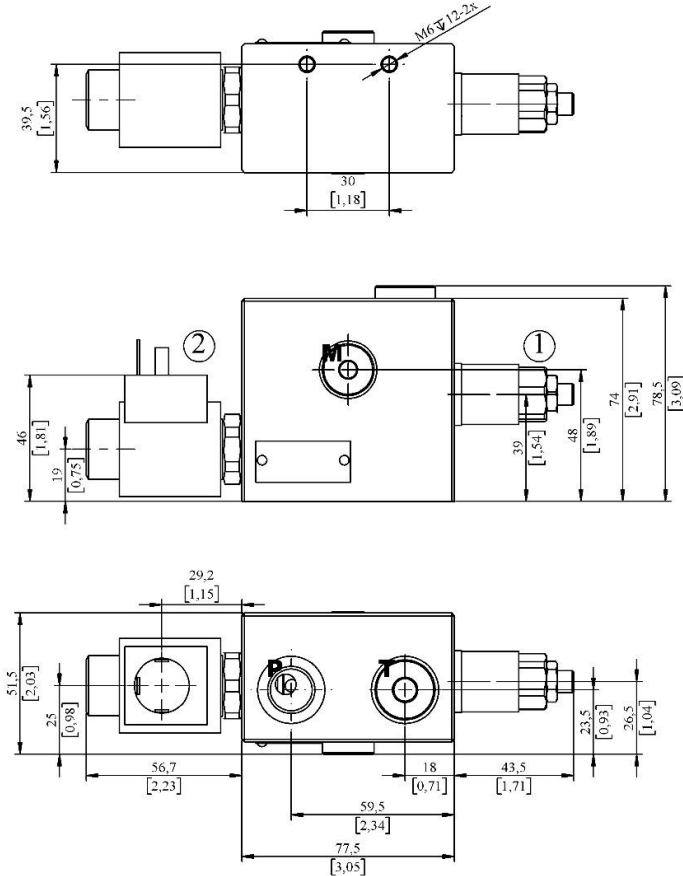
Inlet section N1(JG3-150)



① Pressure relief valve

Inlet section: dimension and hydraulic circuit

Inlet section N1(JG3-150)-ELN



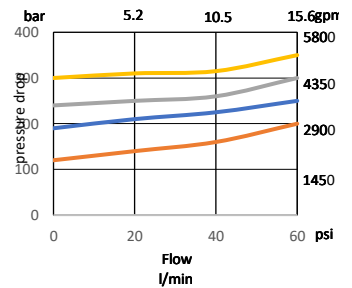
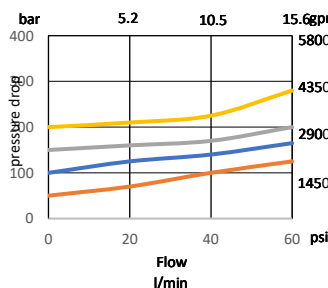
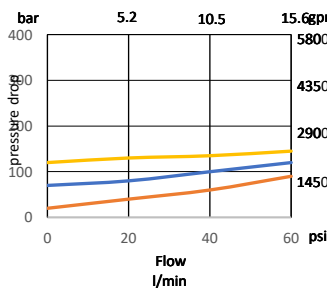
- ① Pressure relief valve
- ② Solenoid operated unloader valve

Relief valve type “JG” performance characteristics

Spring nr2. (green)

Spring nr3. (blue)

Spring nr.4 (red)

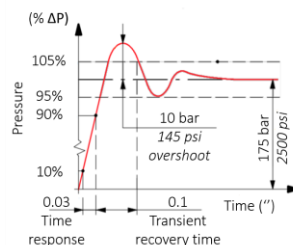


Inlet relief valve pressure ranges and codes

JG2	Range 40-80 bar / 580 to 1150 psi standard setting at 80 bar / 1150 psi
JG3	Range 63-200 bar / 900 to 2900 psi standard setting at 120 bar / 1750 psi
JG4	Range 160-315 bar / 2300 to 4600 psi standard setting at 220 bar / 3200 psi

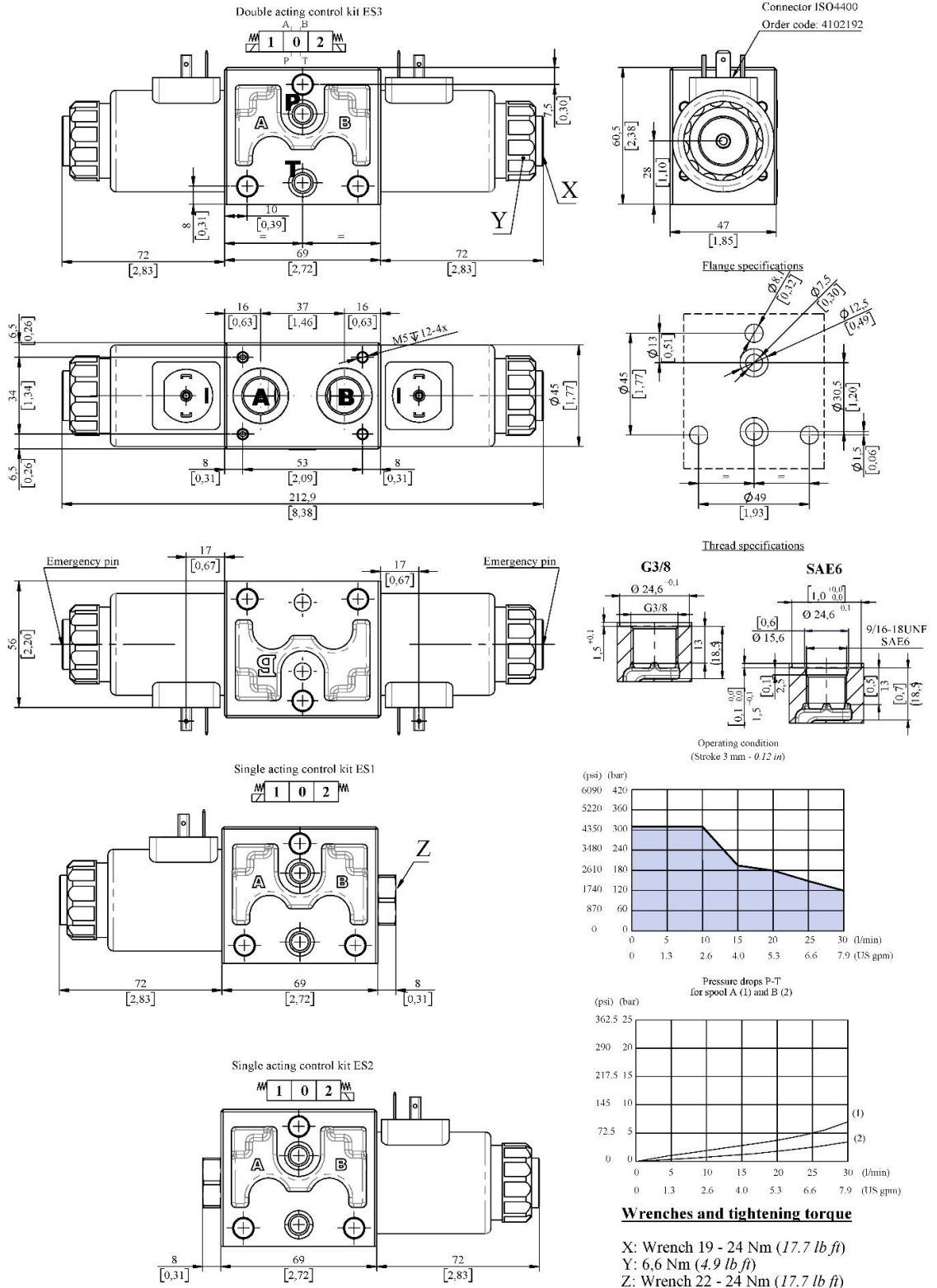
Standard setting is referred to 12 l/min flow

Time response



Work section 30 l/min - G3/8 (SAE6) , external dimensions

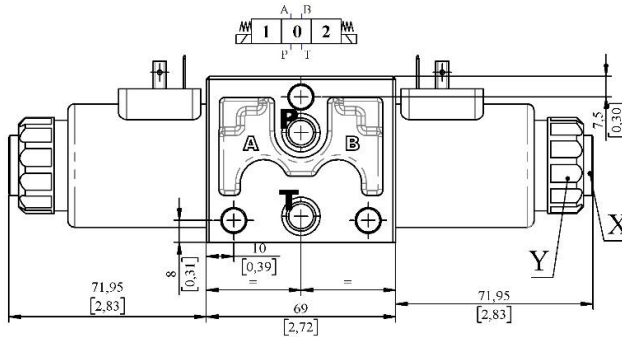
ON/OFF solenoid control: ES3 – ES2 – ES1 type



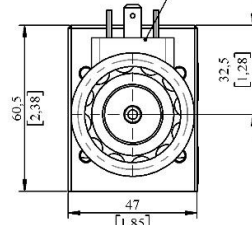
Work section 50 l/min - G1/2 (SAE8) , external dimensions

ON/OFF solenoid control: ES3 – ES2 – ES1 type

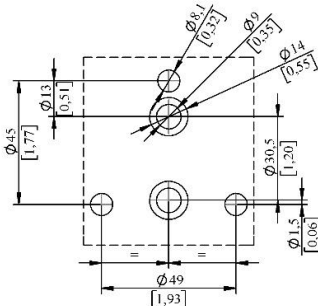
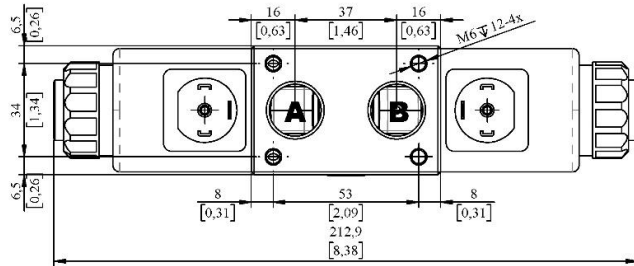
Double acting control kit ES3



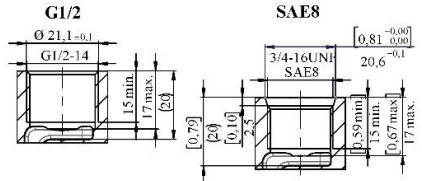
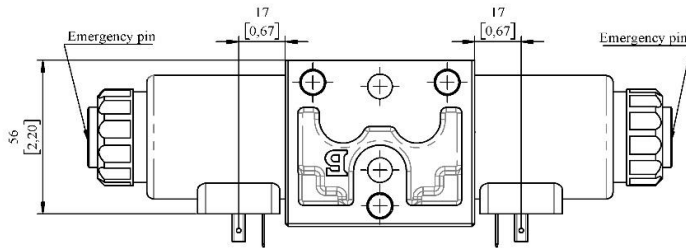
Connector ISO4400
Order code: 4102192



Flange specifications

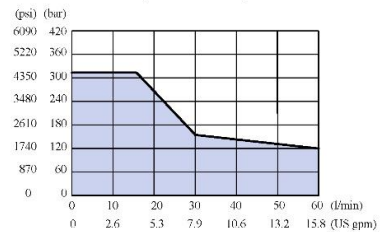
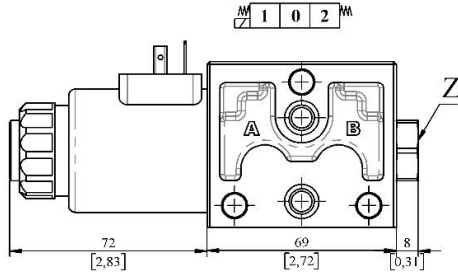


Thread specifications



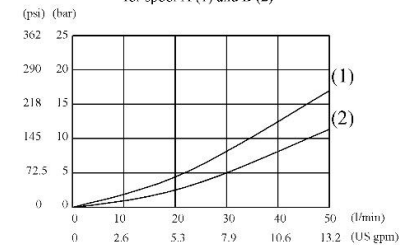
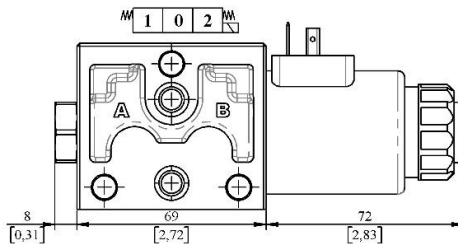
Operating condition
(Stroke 3 mm - 0.12 in)

Single acting control kit ES1



Pressure drops P-T
for spool A (1) and B (2)

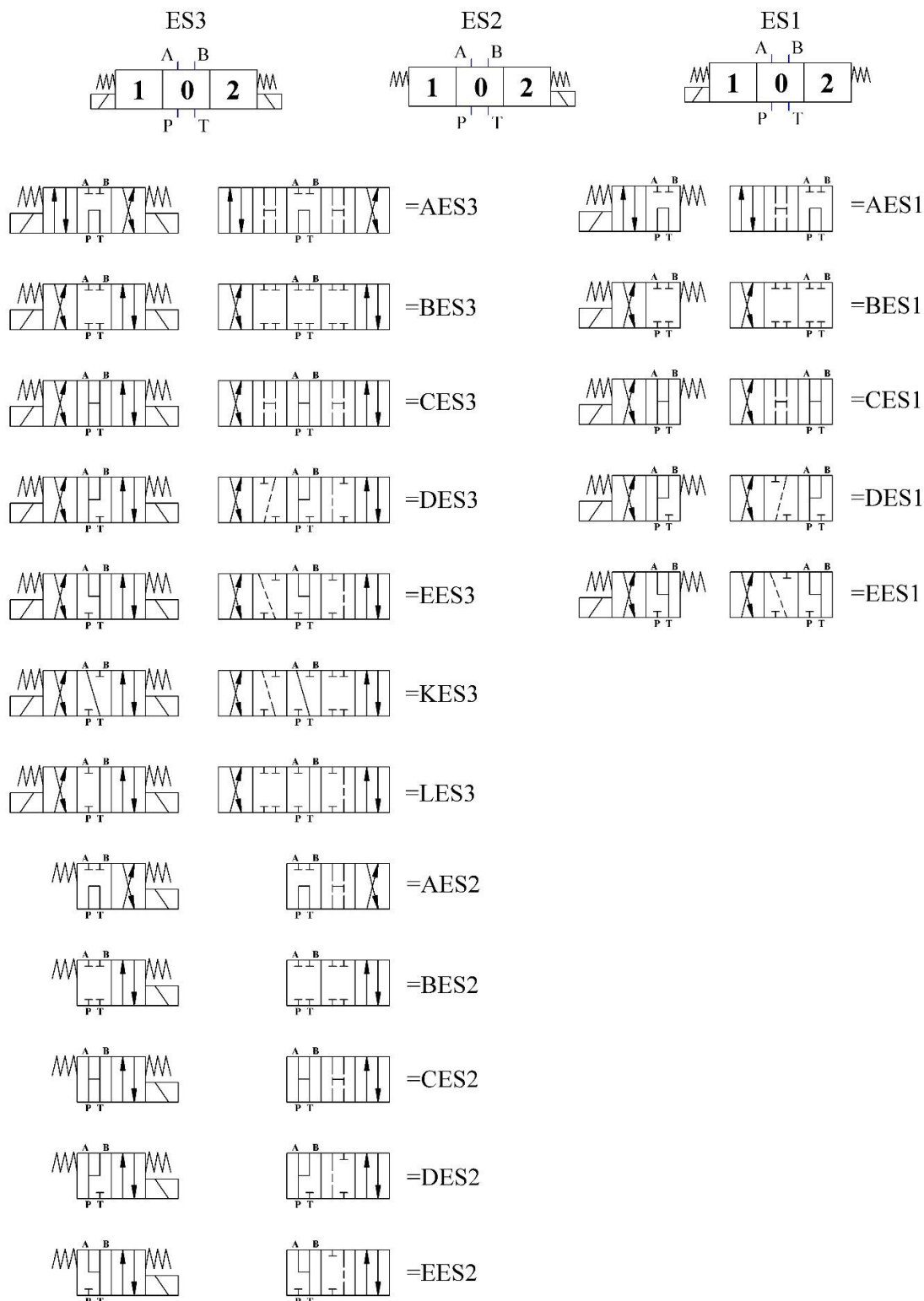
Single acting control kit ES2



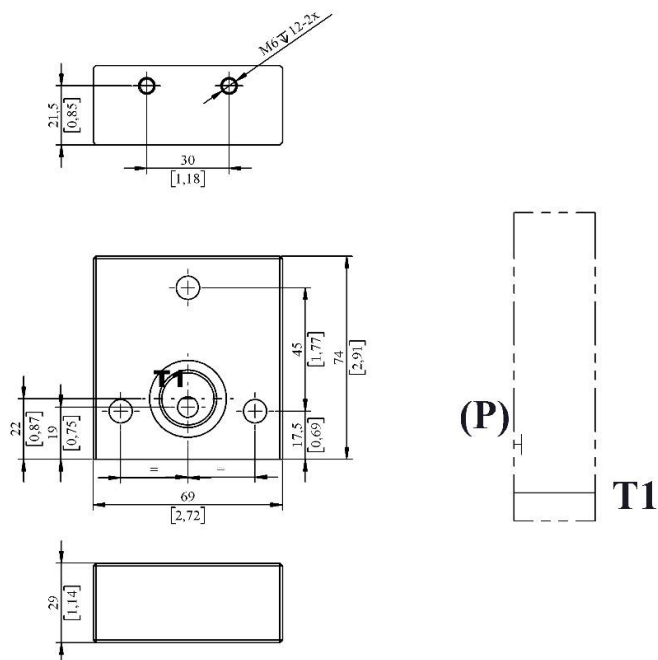
Wrenches and tightening torque

- X: Wrench 19 - 24 Nm (17.7 lb.ft)
- Y: 6.6 Nm (4.9 lb.ft)
- Z: Wrench 22 - 24 Nm (17.7 lb.ft)

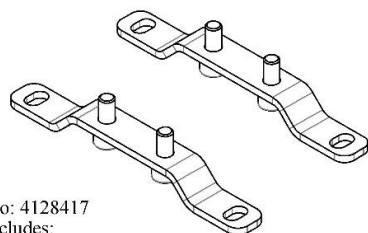
Spool variants for work sections



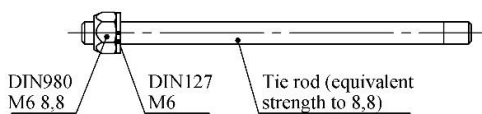
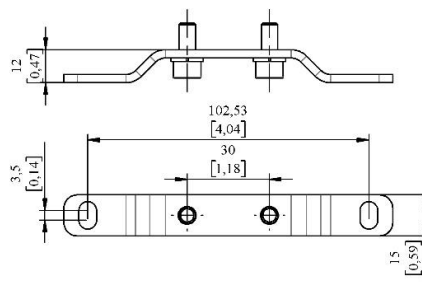
Outlet cover



Accessories – fixing bracket and tie rod kits



Part no: 4128417
 Kit includes:
 2 brackets, 4 screws M6x14,
 and 4 washers DIN127 M6



Kit for:	Part no	L [mm]
B30	4128404	95
2B30	4128405	142
3B30	4128406	189
4B30	4128407	236
5B30	4128408	283
6B30	4128409	330
7B30	4128410	377
8B30	4128411	424
9B30	4128412	471
10B30	4128413	518